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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/110,678	07/07/1998	RANDELL L. MILLS	9113-20-CH1	4978

7590 07/28/2004
FARKAS & MANELLI, PLLC
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EXAMINER

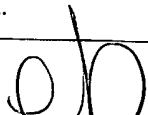
KALAFUT, STEPHEN J

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/110,678	Applicant(s) MILLS, RANDELL L.	
	Examiner Stephen J. Kalafut	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2004 and 17 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-131 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-131 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/22/04</u> . | 6) <input type="checkbox"/> Other: _____ |

Claims 2-131, for reasons of record, are rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility. See paper nos. 13 and 20.

Claims 2-131, for reasons of record, are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. See paper nos. 13 and 20.

Applicant's arguments filed 4/22/2004 and 5/17/2004 have been fully considered but they are not persuasive.

Applicant asks for a reason why he is required to submit peer-reviewed evidence, while the PTO is not. Applicant is alleging a long-accepted scientific idea is incorrect, and thus bares the burden of providing evidence convincing to the scientific community, while the Office does not have the experimental capability to prove or disprove the theories which underlie inventions, and thus must rely on scientific principles which are known and accepted. The one article cited by the Office which does not appear to be peer-reviewed is that by Zimmerman, which is cited only for a small section which considers the macroscopic consequences of applicant's theory, pertaining to an electron beam.

Applicant argues that he has made rebuttal comment to the paper by Dr. Zimmerman, which have been ignored. This rebuttal (Attachment I) has been reviewed, but does not address the point made in the previous office action, that a beam of moving electrons, all behaving as

theorized by applicant, would have their spin axes all polarized in the same direction, while in reality, electron beams most commonly exhibit random polarization, i.e., their spin axes do not all line up with their direction of motion. It should be noted that the examiner does not say that applicant states that these moving electrons would all be polarized in the same direction, only that such polarization is implied by applicant's theory. While applicant faults the Zimmerman paper as not being peer-reviewed, which may be true, the cited section refers to applicant's own book, and thus only considers the implications of applicant's own theory. In the January 2000 edition of *The Grand Unified Theory of Classical Quantum Mechanics*, the cited section appears on pages 100 through 113. It is noted that the Zimmerman paper is also cited in the Appendix attached to the Office Action of 10/23/2003.

Applicant faults Krieg, stating that Krieg make an argument first made by Feynman, although not referencing Feynman, and argues that the angular momentum of the electron "from the SE is zero", not Planck's constant as argued by Feynman. This is not persuasive because the calculation shown by Krieg does not deal with angular momentum, but simple momentum, as given by the formula $p=mv$. Also, Krieg does not allege that the electron cannot move closer to the nucleus than the Bohr radius, only that the spherical location defined by the Bohr radius is the place where an electron will have it minimum energy. Also, in order for electron angular momentum to be zero, its speed around the nucleus would have to be zero (since an electron has mass, and thus angular momentum is proportional to angular velocity). This contradicts applicant's position that an electron would have increasing speed with increasing p values, since this position implies that the electron is in motion around the nucleus, and thus has angular

momentum. It is noted that Krieg lists three references at the end of his article, none of which were written by Feynman.

Applicant points out that his theory provides for a "new 'ground' state", where the largest possible value for the variable "p" is 137. This would correspond to the principal quantum number "n" being 1/137. As pointed out in the Appendix attached to the Office Action of 10/23/2003, section (9), this is based on an understanding of the Special Theory of Relativity, which is incorrect because an electron is not an inertial linear system, but undergoes acceleration and change of direction.

Applicant argues that his theory accounts for randomly polarized electrons, and cites the Stern-Gerlach experiment. This experiment deals with a magnetic field being applied to a free electron, and not with electrons traveling together in a beam, as mentioned in the January 2000 edition of his book, and as referenced by Dr. Zimmerman.

Applicant argues that the examiner has miscalculated the energy levels predicted by the applicant's theory, because energy is transferred to a catalyst in amounts of $m \times 27 \text{ eV}$, where m is an integer. This is not persuasive because in order to accept such amounts, the hydrogen atom must be able to give energy in these same amounts, some of which do not fit into the alleged energy levels of a hydrogen atom, as theorized by applicant.

Applicant points out that the reasons for Balmer line broadening are discussed in many articles, and that the observed broadening is in excess in what can be expected from known sources thereof. This is not persuasive because broadening may be caused by various means including those taken into account by applicant, and those not taken into account. In the enclosed article by Luggenhölscher *et al.*, broadening equivalent to that found by applicant,

shown in figure 1, is accounted for by conventionally known explanations such as the Stark effect. The enclosed article by Luque *et al.* accounts for H α broadening using two Lorentzian mechanisms (Stark and Van der Waals) and two Gaussian mechanisms (Doppler and instrumental).

Applicant argues that the release of energy from hydrogen to form lower states thereof is the source of the energy for a hydrogen-argon plasma. This is not persuasive because it does not take into account the tendency of atomic hydrogen to recombine into molecular hydrogen, which would release energy. The attachments from applicant also indicate an additional energy source, such as a heater or a microwave generator.

Since the mailing of the previous Office Action, applicant's attachments 50-56 and 86-101 have either been submitted or located from being previously submitted. Attachments 50-56 are dealt with below, along with attachments 86-101, thus rendering moot the allegation of any "Attempt to Rewrite History".

1) Attachments 55, 56, 86-89 and 91-100 would belong in category (1) of the Office Action of 10/23/2003, i.e., they have not been peer reviewed or published.

2) Attachments 51, 52, 54, 55, 88-92, 95-97, 99 and 100 would belong in category (2) of that Office Action, i.e., they speculate hydrino formation as an explanation for experimental data unrelated to and not necessarily caused by hydrinos.

3) Attachments 98, 100 and 101 would belong in category (3) of that Office Action, as explained in pages 3 and 4 of the Appendix thereof, i.e., they contain misidentifications of spectral lines.

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4) Attachments 53, 59, 65, 66, 80 and 94 do not deal with the “hydrino”, but other subject matter, such as spectral data for states above $n=1$, and thus even if valid, do not pertain to the present invention. This category was not mentioned in the previous Office Action, so both the newly submitted attachments and those previously submitted are listed.

5) Attachments 50, 57, 60, 63, 67, 70, 71, 73, 75, 76, 78, 79, 81, 86, 87, 89-94, 98, 99 and 101 contain data which cannot be accounted for by applicant's theory, as explained on pages 2 and 3 of the Office Action of 10/23/2003. The specific previously submitted attachments were not specifically listed in that Office Action, so they are included in the present list.

6) They are unrelated to the scientific merits of the present invention and only either generally relate to news stories about the PTO and applicant's related applications, or are copies of court cases, a letter to Director Rogan, or other internal documents such as interview summaries. To this category belong attachments A, C, D, G, H, I, J, K, M, N, O, P, Q and R.

Since all the “evidence” presented in attachments 50-101 belongs to at least one of the categories (1) to (6) above, they are all deemed to be incredible, and hence, invalid as experimental proof for the existence of the hypothetical hydrino, or compound based thereon.

Applicant argues the various points made in the Appendix attached to the previous Office Action, but in doing so simply attacks quantum mechanics itself, for example, by stating that he rejects Schrödinger equation (p. 33 of the 72-page response), and by faulting Feynman and Dirac. The Appendix, in the section from pages 5-15 thereof explaining the faults in applicant's theory, does not mention Feynman and Dirac.

Applicant argues that a reference authored by Dr. Robert Park was cited in the decision to rescind the allowance of some of his applications. Applicant believes that Dr. Park is involved

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with the examination of his cases. The citation of someone's article does not indicate that any such person is involved with the Office in the examination process.

While applicant argues that the Office should deal with the scientific aspects of his invention and not merely the theoretical aspects, applicant has introduced his theory into his claims, thus necessitating an evaluation of his theory. Also, theoretical considerations are not separate from scientific explanations, but are a part of science.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Kalafut whose telephone number is 571-272-1286. The examiner can normally be reached on Mon-Fri 8:00 am-4:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sjk



STEPHEN KALAFUT
PRIMARY EXAMINER
GROUP

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